IN THE CLAIMS

Amendments to the claims:

This listing of the claims will replace all prior versions and listings of claims in the application.

Please amend the claims as follows:

1-5. (Canceled).

6. (New) A lithium ion secondary battery, comprising: a pair of electrodes comprising a positive electrode and a negative electrode; a separator comprising a microporous film; and a non-aqueous electrolyte,

wherein said positive electrode and said negative electrode are wound with said separator interposed therebetween,

said positive electrode comprises: a positive electrode core material; and a positive electrode material mixture layer carried on said positive electrode core material, said positive electrode material mixture layer comprising a composite lithium oxide,

said negative electrode comprises: a negative electrode core material; and a negative electrode material mixture layer carried on said negative electrode core material, said negative electrode material mixture layer comprising a negative electrode material capable of absorbing and desorbing lithium,

in the case where the winding direction is in a longitudinal direction, said positive electrode is provided with a positive electrode current collector portion on one end thereof in said longitudinal direction, said positive electrode current collector portion being a protrusion of said positive electrode core material on which said positive electrode material mixture layer is not carried,

a part of a positive electrode lead is welded to said positive electrode current collector portion,

an entire surface of said positive electrode material mixture layer and a part of said positive electrode current collector portion are covered with a porous electron-insulating layer, and

said porous electron-insulating layer contains 50 wt% or more of an inorganic oxide filler and below 50 wt% of a binder.

7. (New) The lithium ion secondary battery in accordance with claim 6, wherein said positive electrode current collector portion has an exposed region not covered with said porous electron-insulating layer, and a part of said positive electrode lead is welded to said exposed region.

8. (New) The lithium ion secondary battery in accordance with claim 6, wherein the thickness of said separator is 10 to 25 μm and the thickness of said porous electron-insulating layer is 2 to 10 μm.

9. (New) The lithium ion secondary battery in accordance with claim 6, wherein said porous electron-insulating layer contains 90 wt% or more of an inorganic oxide filler and below 10 wt% of a binder.

10. (New) The lithium ion secondary battery in accordance with claim 6, wherein said inorganic oxide filler is at least one selected from the group consisting of alumina, titania, zirconia, and magnesia.

11. (New) The lithium ion secondary battery in accordance with claim 6, wherein said binder included in said porous electron-insulating layer comprises a resin material which either does not have a crystalline melting point, or has a crystalline melting point of 250°C or more.

12. (New) The lithium ion secondary battery in accordance with claim 6,

wherein, in the case where the winding direction is in a longitudinal direction, said negative electrode is provided with a negative electrode current collector portion on one end thereof in said longitudinal direction, said negative electrode current collector portion being a protrusion of said negative electrode core material on which said negative electrode material mixture layer is not carried,

a part of a negative electrode lead is welded to said negative electrode current collector

portion,

an entire surface of said negative electrode material mixture layer and a part of said negative electrode current collector portion are covered with a porous electron-insulating layer, and

said porous electron-insulating layer contains 50 wt% or more of an inorganic oxide filler and below 50 wt% of a binder.

13. (New) The lithium ion secondary battery in accordance with claim 12, wherein said negative electrode current collector portion has an exposed region not covered with said porous electron-insulating layer, and a part of said negative electrode lead is welded to said exposed region.

14. (New) the lithium ion secondary battery in accordance with claim 12, wherein said positive electrode current collector portion and said negative electrode current collector portion are disposed on end portions, respectively, said end portions positioned at opposite sides of the winding direction which is in said longitudinal direction, respectively.

15 (New) The lithium ion secondary battery in accordance with claim 12, wherein said porous electron-insulating layer contains 90 wt% or more of an inorganic oxide filler and below 10 wt% of a binder.

16. (New) The lithium with claim 12, wherein said inorganic oxide filler is at least one selected from the group consisting of alumina, titania, zirconia, and magnesia.

17. (New) A lithium ion secondary battery, comprising: a pair of electrodes comprising a positive electrode and a negative electrode; a separator comprising a microporous film; and a non-aqueous electrolyte,

wherein said positive electrode and said negative electrode are wound with said separator interposed therebetween,

said positive electrode comprises: a positive electrode core material; and a positive electrode material mixture layer carried on said positive electrode core material, said positive electrode material mixture layer comprising a composite lithium oxide,

said negative electrode comprises: a negative electrode core material; and a negative electrode material mixture layer carried on said negative electrode core material, said negative electrode material mixture layer comprising a negative electrode material capable of absorbing and desorbing lithium,

in the case where the winding direction is in a longitudinal direction, said negative electrode is provided with a negative electrode current collector portion on one end thereof in said longitudinal direction, said negative electrode current collector portion being a protrusion of said negative electrode core material on which said negative electrode material mixture layer is not carried,

a part of a negative electrode lead is welded to said negative electrode current collector portion,

an entire surface of said negative, electrode material mixture layer and a part of said negative electrode current collector portion are covered with a porous electron-insulating layer, and

said porous electron-insulating layer contains 50 wt% or more of an inorganic oxide filler and below 50 wt% of a binder.

18. (New) The lithium ion secondary battery in accordance with claim 17, wherein said negative electrode current collector portion has an exposed region not covered with said porous electron-insulating layer, and a part of said negative electrode lead is welded to said exposed region.

19. (New) The lithium ion secondary battery in accordance with claim 17, wherein the thickness of said separator is 10 to 25 μm and the thickness of said porous electron-insulating layer is 2 to 10 μm.

20. (New) The lithium ion secondary battery in accordance with claim 17, wherein said porous electron-insulating layer contains 90 wt% or more of an inorganic oxide filler and below 10 wt% of a binder.

21. (New) The lithium ion secondary battery in accordance with claim 17, wherein said

inorganic oxide filler is at least one selected from the group consisting of alumina, titania, zirconia, and magnesia.